

Work Order ID 150666

Monday, August 29, 2016 2:57:23 PM

Page 1

Item ID: 646.3810

Revision ID:

Item Name: Bracket

Start Date: 8/8/2016 Start Qty: 5.00

Required Date: 8/29/2016 Req'd Qty: 5.00

Reference:

DAS
21
9-89

Approvals: Process Plan: _____ Date: AUG 30 2016 Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

N900040100Setup Start ***NS1***Stop ***NS2***

Cust Item ID:

Customer:

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

646.3800

N/C

110

110

Mill Conv

Conventional Milling Machine

HAAS CNC VERTICAL MACHINING #1

Memo

1-Machine per DWG
DWG REV: N/C

2- deburr and break all sharp edges

0.00

0.17

120

120

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

0.01

DAS
32
9-89

16-09-12

DAS
32
9-89

16-09-12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

Work Order ID 150666

Monday, August 29, 2016 2:57:23 PM

150666

Page 2

Item ID: 646.3810

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bracket

Start Date: 8/8/2016 Start Qty: 5.00

5

Cust Item ID:

Required Date: 8/29/2016 Req'd Qty: 5.00

5

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC8- Inspect parts - second check

0.00

130

QC

Memo

0.02

Quality Control

5

0

DAS
20
9-89

16-09-12

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

149.99

Outsource process - Anodize

Issue P/O to ATG : 33634

1- Black Anodize as per Dwg 646.3800

2- PRIME AS PER DWG, SEE NOTE #2

Certification of Comformity is required

5

SEP 13 2016

DAS
13
9-89

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.02

Packaging

5x 80/16-9-28

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																																																																						
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150666

Page 3

Item ID: 646.3810

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bracket

Start Date: 8/8/2016 Start Qty: 5.00 ***5***

Cust Item ID:

Required Date: 8/29/2016 Req'd Qty: 5.00 ***5***

Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
155	QC5- Inspect part completeness to step on W/O	0.00							
155									
QC	Memo	0.02				5			DAS 38 9-89
Quality Control									SEP 29 2016
180	Identify as per dwg & Stock Location: <u>CC/K/Dp</u>	0.00							
180									
Packaging	Memo	0.01				5			DAS 6 9-89
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								SEP 29 2016
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.08							DAS 21 9-89
Quality Control									SEP 30 2016

SEP 30 2016

SEP 30 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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OTHER : ☐					

Picklist Print

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Page 1

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Parent Item: 646.3810

646.3810

Parent Item Name: Bracket

Start Date: 8/8/2016

Required Date: 8/29/2016

Start Qty: 5.00

Required Qty: 5.00

Comments: IPP REV:A NEW ISSUE 12-10-22 JLM VERIFIED:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6A1.00X0.75X 0.125X0.060		Purchased	No			110	f	17.5721	0.1375	0.6875			

***M7075T6A1 00X0 75X0 125X0**

7075T6 ANGLE 1.0" X .75" X .125" X .060"W

16-09-12

DAS
32
9-89

Location

Loc Qty

Loc Code

MAT051

17.5721

123947

17.5721

1.531'

DQA: _____ Date: _____



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Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03697				SHEET 1 OF 1	
	DWG NO. 646.3800	REV: N/C	PREPARED BY B. PETERS	DATE: 11/14/12	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: BRACKETS					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>David Baker</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: ADDED ALTERNATE MATERIAL.				ECR: D-12-006	

IS

1 PRIMARY MATERIAL: 7075-T651 ALUMINUM PER AMS-QQ-A-250/12.
ALTERNATE MATERIAL: 7075-T6511 ALUMINUM PER AMS-QQ-A-200/11.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 150666 MJS
160830

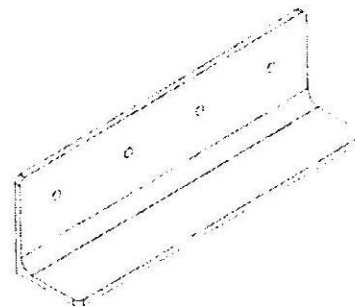
SHEET 1, ZONE A2 IS:

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL	SPECIFICATION
DOCUMENTS EFFECTED:				☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO

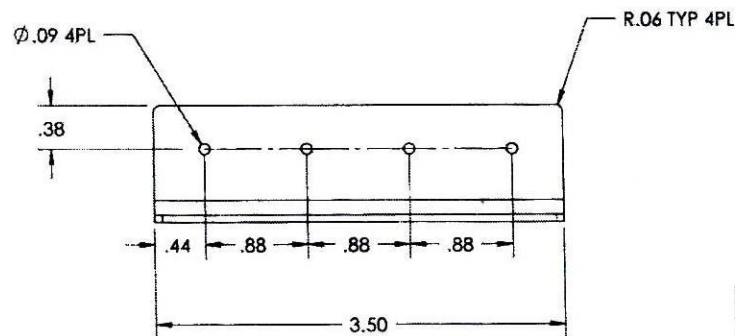
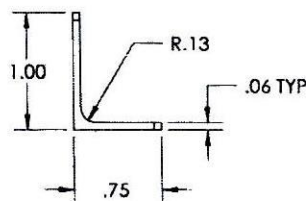
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NOTES:

1. MATERIAL: ALUMINUM 7075-T651 AMS-QQ-A-250/12
2. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
3. DEBURR AND BREAK ALL SHARP EDGES
4. IDENTIFY IAW MPP-120



646.3810



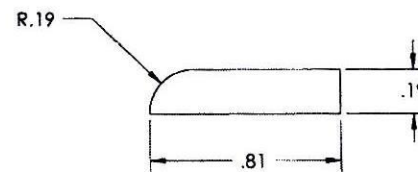
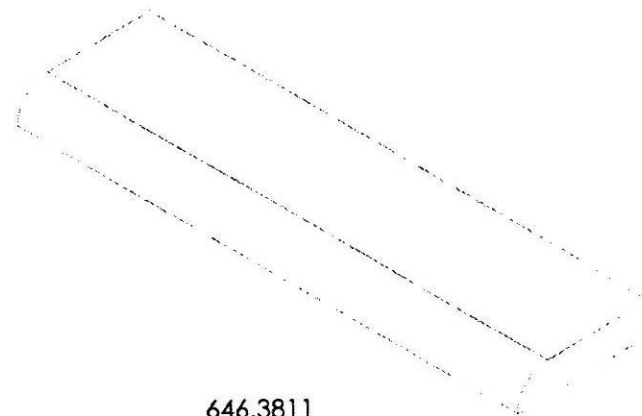
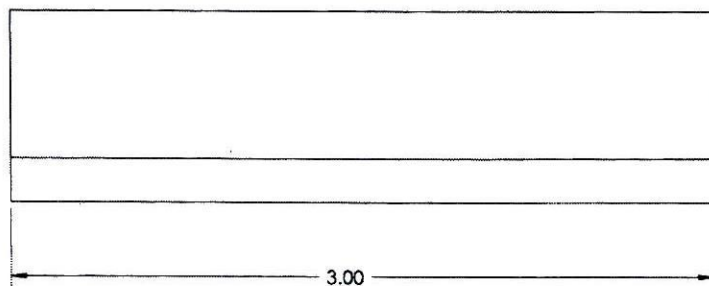
UNINCORPORATED E.L. (S)

03/09/97

		646.3814	WIPER BRACKET	△	△
		646.3813	STRUT BRACKET	△	△
		646.3812	GUSSET BRACKET	△	△
		646.3811	RADIUS BLOCK	△	△
		646.3810	BRACKET	△	△
	QTY	FIN D #	PART #	DESCRIPTION	MATL SPEC.
QTY					
NEXT ASSY (S)			PARTS LIST		
646.4000			APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300		
ORIGINAL DATE 05-15-05 DRAWN BY CHECKER C. CHAMBERLAIN P. MARANO DIMENSIONS DIFFERENTIAL CONDUCTED BY:			20 UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 2 PLACE DECIMALS ± .010 3 PLACE DECIMALS ± .005 ANGLES ± .5°		
STY	CAGE CODE	DWG NO	REV	REV	
B	071166	646.3800	N/C	N/C	
SCALE NONE				SHEET 1 OF 3	

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APICAL INDUSTRIES. ANY REPRODUCTION, IN PART OR WHOLE, WITHOUT
THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

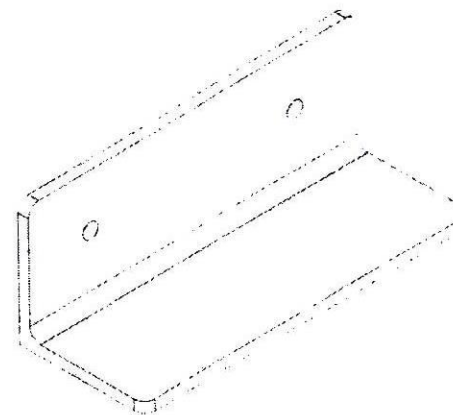
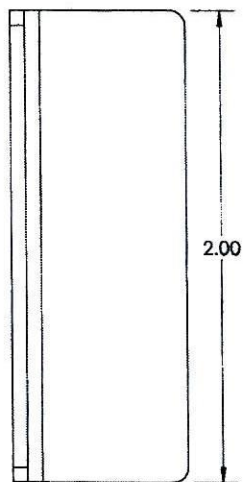
REV	DESCRIPTION	DATE	APPROVED



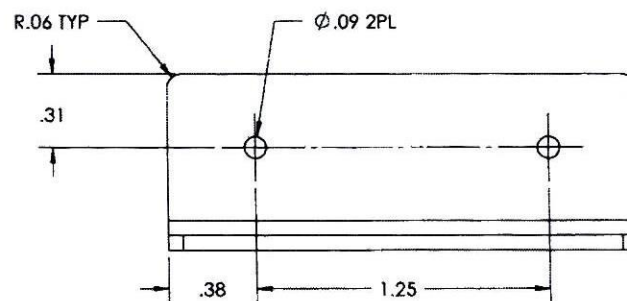
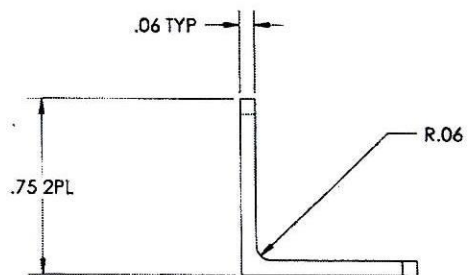
NEXT ASSY (S)	ORIGINAL DATE	06-19-06	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	BRACKETS
	DRAWN BY	J. GARDNER		
	CHECKED			
	DRAWING APPROVAL			
	CONTRACT NO.			
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 3 PLACE DECIMALS ±.003 ANGLES ±.5°	SIZE CAGE CODE R 07M26	DWG. NO. 646.3800	REV. N/C
	SCALE	NONE	SHEET 2 OF 5	

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APICAL INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT
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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



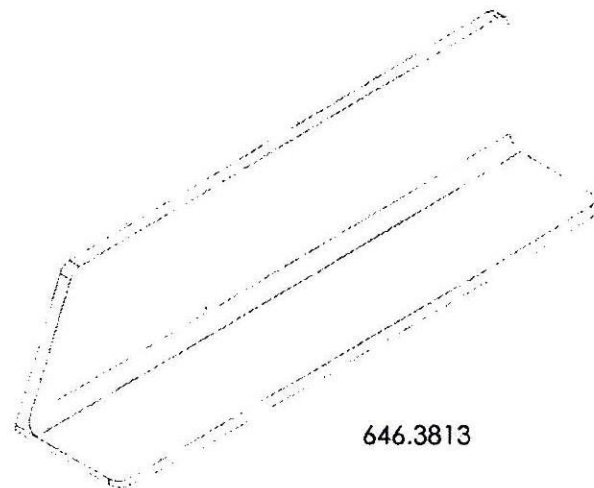
646.3812



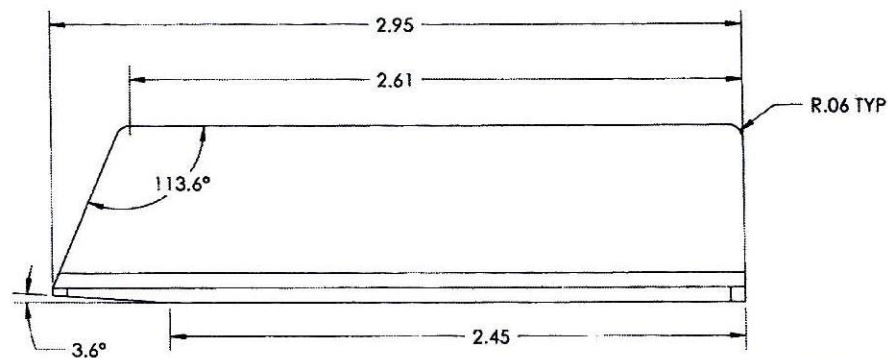
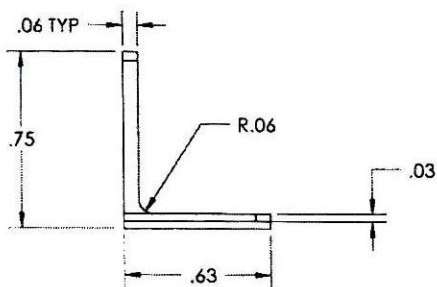
NEXT ASSY IS:	ORIGINAL DATE	05-19-08	APICAL INDUSTRIES	
	DATE	05-19-08		
	DRAWN BY	JGARDNER	2608 TEMPLE HEIGHTS DR.	
	DRAWING APPROVAL		OCEANSIDE, CA. 92056-3512 (760)724-5300	
	CONTRACT NO.		BRACKETS	
	UNLESS OTHERWISE SPECIFIED		SIZE	FIN.
	DIMENSIONS ARE IN INCHES		B	Ø.0012
	TOLERANCES ARE			
	2 PLACE DECIMALS ±.010			
	3 PLACE DECIMALS ±.005			
	ANGLES 9.5°			
	SCALE	NONE		
			SHEET	3 OF 3

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



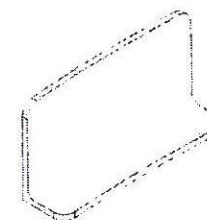
646.3813



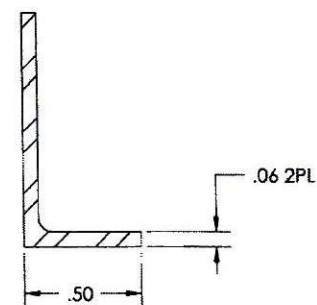
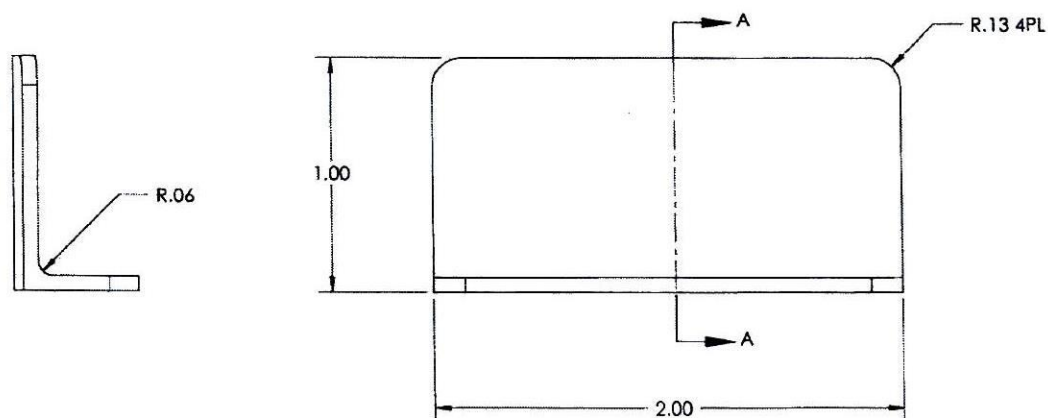
NEXT ASSY (S)	ORIGINAL DATE	06-19-08	APICAL INDUSTRIES	
	INCHES	CHECKER		
	DRAWN BY	J. GARDNER	2608 TEMPLE HEIGHTS DR.	
	ENGINEER		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CONTRACT NO.			BRACKETS	
UNLESS OTHERWISE SPECIFIED			SCALE	NONE
DIMENSIONS ARE IN INCHES			SHEET	4 OF 5
TOLERANCES ARE:				
2 PLACE DECIMALS ±.01				
3 PLACE DECIMALS ±.005				
ANGLES ±.5°				

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



646.3814



SECTION A-A

NEXT ASSY IS		ORIGINAL DATE 08-16-06	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA, 92056-3512 (760) 724-5300	
DRAWN BY JGA/POWER		CHECKED		
DATE OF REVISION		DATE OF APPROVAL	BRACKETS	
CONTRACT NO.				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.015 3 PLACE DECIMALS ±.005 ANGLES ±.5°			SPT CAGE CODE B 07M26	DWG NO. 646.3800
			SCALE NONE	SHEET 5 OF 5



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO33634**

Purchase Order Date 9/13/2016

PO Print Date 9/23/2016

Page Number 2 of 3

Order From :

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

VC-ATG001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

613-446-4544

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

Line Total:

\$30.50

4 150666

✓ 646.3810 BRACKET
REV. N/C

9/27/2016

Yes

9/27/2016

5.00

\$6.55

\$32.75

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$32.75

5 150383

✓ ✓ D5156-7 FACE PLATE
REV. B

9/27/2016

Yes

9/27/2016

4.00

\$28.75

\$115.00

FINISH: BLACK ANODIZE PER MIL-A-8625F TYPE I/IB/IC/II/IIIB, CLASS 2

Line Total:

\$115.00

6 71401-45

ADMIN FEE ✓

9/27/2016

Yes

9/27/2016

1.00

\$150.00

\$150.00

Note:

9/23/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912310

Date: 27-Sep-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
5 ea	Part: 646.3810 Bracket Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20121	Rev: N/C PO: 33634	Line: 2
5 ea	Part: 646.3819 Strut Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20122	Rev: PO: 33634	Line: 3
5 ea	Part: 646.3810 Bracket Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20123	Rev: N/C PO: 33634	Line: 4
4 ea	Part: D5156-7 Anodize, Type II, Class 2 (MIL-A-8625F) Job: 20124	Rev: B PO: 33634	Line: 5
1 ea	Part: ADMINISTRATION FEE ADMINISTRATION FEE Job: 20125	Rev: N/A PO: 33634	Line: 6
DATE: 27/9/16			
CERTIFIED SIGNATURE: [Signature]			
RECEIVER SIGNATURE: _____			



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912310

Date: 27-Sep-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms

Ship Via

Quantity

Description

Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.

CERTIFICATE OF CONFORMANCE

A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.

MADE IN CANADA.

Sp/6 9-28